REMARKS

This Amendment, submitted in response to the Office Action dated August 1, 2005, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-20 are now all the claims pending in the present application.

I. Rejection of claims 1-18 under 35 U.S.C. § 103(a)

Claims 1-18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwark (USP 5,189,296).

Claim 1

Claim 1 recites "A transmission apparatus using a plastic fiber comprising a plastic fiber." The Examiner cites optical fiber 50 of Kwark for teaching the claimed fiber, however, there is no teaching or suggestion that the optical fiber of Kwark is plastic.

Claim 1 also recites "a photodetector for detecting light, which has been propagated through the plastic fiber." The Examiner cites detector 40 for teaching the claimed photodetector.

Claim 1 further recites that "the photodetector comprises a plurality of semiconductor light receiving devices, whose light receiving sensitivity wavelength regions are identical with one another, each of the semiconductor light receiving devices having a light receiving area smaller than a cross-sectional area of a core of the plastic fiber." The Examiner cites cells 200 for teaching the plurality of light receiving devices.

However, there is no indication that the plurality of semiconductor light receiving devices have light receiving sensitivity wavelength regions identical with each other. Rather, Kwark relies on a difference in sensitivity of detectors 220, 233 for operation of the alignment device. This suggests that the sensitivity wavelength regions are not identical. Col. 4, line 62 to col. 5, line 7.

The Examiner concedes that Kwark does not disclose that the optical fiber is plastic and that the light receiving area of each light receiving device (cells 200 as cited by the Examiner) is smaller than a cross-section area of a core of the plastic fiber. However, the Examiner asserts that Kwark teaches that the cell size for each detector cells is typically 50 x 50 microns and that this dimension will vary according to the array size and dimensions of the transmission media.

The Examiner appears to be relying on a form of official notice for this aspect of the claim. Consequently, Applicant requests the citation of a proper combinable reference.

The Examiner asserts that Kwark does not disclose that a particular optical fiber of a particular core diameter must be used in the invention, thereby indicating a lack in the criticality of the optical fiber used. However, Applicant submits that the Examiner is applying an improper standard since evidence of criticality is used by an applicant, and not the Examiner, to establish non-obviousness. MPEP 716.01(a).

Moreover, claim 1 has been amended to recite "wherein the positional relationship between the plastic fiber and the photodetector is fixed; and wherein all of the plurality of the semiconductor light receiving devices receive the light which is radiated out from the plastic fiber."

In Kwark, the light receiving elements are provided in an area which is wider than an actual light receiving area so as to allow a change in positional relationships between the optical fiber and the light receiving elements. In Kwark, light is received by only a part of the light receiving elements, and electric connection is established only between the busbars and the light receiving elements which have received light. In contrast, in the present invention, the positional relationship between the plastic fiber and the photodetector is fixed, and light is received by all of a plurality of semiconductor light receiving devices of the photodetector.

For at least the above reasons, claim 1 and its dependent claims should be deemed allowable.

Claim 9

Claim 9 recites that the plurality of the semiconductor light receiving devices "are electrically isolated from one another." The Examiner cites col. 6, lines 16-34 for teaching this aspect of the claim. However, contrary to the Examiner's assertions, the respective column and lines cited by the Examiner discloses that the cells in the array are connected in parallel by busbars 205 and 210. The optical transmission media can align with any one cell or small group of cells and the light signal converted to electrical signals will be converted from that cell or group of cells. For at least the above reasons, claim 9 should be deemed allowable.

Claim 10

Claim 10 recites "wherein the base plate has a rectangular shape and is **divided into** four subregions, which are arrayed in two columns and in two rows, and each of the semiconductor light receiving devices is formed on one of the **four subregions** of the base plate." The

Examiner asserts that Kwark Fig. 3 teaches this aspect of the claim. Kwark Fig. 3 merely discloses four photodetectors on a substrate 100. The substrate 100 is not divided into four subregions. Moreover, there is no teaching or suggestion that each of the photodetector arrays 40 are formed on one of the four subregions.

For at least the above reasons, claim 10 should be deemed allowable.

II. Rejection of claim 1 under 35 U.S.C. § 103(a)

Claim 1 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ruhrmann (USP 4,936,681).

Claim 1 recites "wherein the photodetector comprises a plurality of semiconductor light receiving devices, whose light receiving sensitivity wavelength regions are identical with one another, each of the semiconductor light receiving devices having a light receiving area smaller than a cross-sectional area of a core of the plastic fiber." The Examiner cites flat detector array 22 for teaching the claimed photodetector and the plurality of detector elements 23 for teaching the plurality of semiconductor light receiving devices. However, there is no indication that the plurality of detector elements 23 have light receiving sensitivity wavelength regions identical with one another or that the plurality of detector elements 23 have a light receiving area smaller than a cross-sectional area of a core of optical waveguide 10. The object of setting an acceptance cone (col. 5, lines 62-65) and the use of secondary light emissions as well as primary light emissions would suggest that this claim feature is not necessary in the operation of Ruhrmann.

The Examiner concedes that Ruhrmann does not explicitly state that each of the semiconductor light receiving devices has a light receiving area smaller than a cross-sectional

area of a core of the plastic fiber. However, the Examiner asserts that Figs. 3 and 4 and col. 8, lines 40-44 of Ruhrmann discloses that the plurality of detector elements 23 have a smaller cross sectional area of the optical waveguide 10.

In Ruhrmann, the light emitted from the waveguide 10 is diffused light, as illustrated in Figures 3 and 4. Therefore, in Ruhrmann, the light receiving area of a plurality of detector elements 23 is not smaller than the cross-sectional area of the core of the waveguide 10.

Further, Applicant submits that proportions of features in a drawing are not evidence of actual proportions. MPEP 2125. Moreover, the respective column and lines cited by the Examiner describe that by selecting a corresponding number of detector elements 23, it is possible to obtain almost any desired resolution of the measuring result and by setting a triggering threshold for partially illuminated detector elements 23 one can further preset a threshold value for recognizing a detector element as illuminated or not illuminated. However, merely because different resolutions can be obtained, does not teach or suggest that "each of the semiconductor light receiving devices having a light receiving area smaller than a cross-sectional area of a core of the plastic fiber," as recited in claim 1.

For at least the above reasons, claim 1 should be deemed allowable.

III. Allowable Subject Matter

The Examiner has indicated that claim 19 is objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form. Applicant has rewritten claim 19 in independent form without the limitations of amended claim 1. Consequently, claim 19 should be allowed.

IV. New Claim

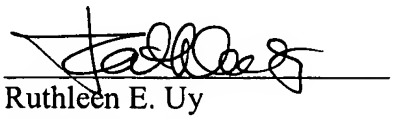
Applicant has added claim 20 to provide a more varied scope of protection. Claim 20 should be deemed allowable by virtue of its dependency to claim 1 for the reasons set forth above.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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